REMARKS

Claims 1, 9, 17 and 24 have been amended. Claim 31 has been added. Claims

1-31 are pending. Applicant respectfully requests reconsideration and allowance of the

application.

Interview Summary

An interview with Examiner Schneider was conducted on August 17, 2005.

During the interview, claim 1 and the Kram reference were discussed. In particular,

Applicant pointed out that the preamble of claim 1 recited "a computer functioning as a

computer based network switch", which clearly indicated that the switching component

and the test control component were contained within a computer. The inclusion of

both components enabled the computer to perform the testing functionalities recited in

the claim. Applicant also pointed out that the system described by Kram did not include

such a computer and that FIG. 3 and the corresponding text in Kram clearly showed that

the emulator host computers described by Kram did not include switches. Although the

emulators described in Kram can simulate some testing conditions, the emulator cannot

create failure conditions of the connections by disabling network adaptors, as recited in

claim 1. Applicant further suggested that claim 1 be amended to clearly indicate that

the failure conditions are physical failure of the connections. Claim 1 has been

amended accordingly.

Rejection under 35 U.S.C. 103 (Kram and Derfler)

Claims 1-30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent 6,314,531 to Kram (hereinafter "Kram") in view of "How Networks Work" by

Derfler (hereafter "Derfler"). Applicant respectfully submits that the claims are

patentable over the cited references.

As amended, independent claim 1 recites:

A computer functioning as a computer-based network switch,
comprising:
a first network adapter for connecting to an external network;
a plurality of second network adapters each for forming a connection
with a network server in a private network;
a switching component for receiving network communication data from
the external network through the first network adapter and directing the
received network communication data to the second network adapters for
transmission to the respective network servers in the private network connected
thereto; and
a test control component for selectively disabling the second network
adapters to create failure of physical connections between the second network
adapters and the respective network servers in the private network connected
thereto.

Claim 1 recites a computer with a first network adapter, second network

adaptors, a switching component and a test control component. The first network

adaptor is configured to connect to an external network and the second network

adapters are for connecting to servers in a private network. The switching component is

for directing data from an external network to the servers while the test control

component is configured to create failure of physical connections between the network

adapters and the servers by disabling the network adaptors. Such a computer is not

disclosed or suggested by Kram.

Instead, Kram merely describes a system for testing and debugging distributed

software systems by using network emulation. In particular, the system described by

Kram tests software by modifying MAC to IP mapping tables of the emulation host

computers to emulate network latency, packet corruption, packet shuffling, packet loss

and network congestion. (See Kram, FIG. 2 and col. 4, line 62 to col. 5, line 17). FIG. 2

in Kram shows that in order to emulate these conditions, the MAC to IP mapping tables

in the computers being tested are required to be modified. This technique for reconfiguring multiple computers described in Kram is significantly different from the way for creating failure of physical connections implemented by the test control component in claim 1.

Furthermore, the emulator host computers in Kram clearly do not include switches. (See Kram, FIG. 3). The conditions created by the emulator host computers in Kram are generated by modifying multiple MAC to IP mapping tables, and not by disabling network adaptors in a computer functioning as a computer-based network switch. Thus, the system described by Kram is simply not capable of creating "failure of physical connections", as recited in claim 1.

The deficiencies in Kram stated above are not remedied by Derfler. Derfler contains general information about networks. Although Derfler appears to describe a switch, Derfler fails to disclose a computer that includes network adaptors that connect an external network and servers in a private network, a switching component that directs network communication data from the external network to the servers, and a test component that is capable of selectively disabling network adapters to create failure of physical connections, as recited in claim 1.

For at least the above-identified reasons, Applicant respectfully submits that claim 1 is patentable over Kram and Derfler, alone or in combination, and is allowable. Given that claims 2-8 depend from claim 1, claims 2-8 are also allowable for at least the same reasons.

As amended, independent claim 9 recites:

A computer-readable medium having computer-executable components for controlling a plurality of network adapters in a computer to create test

conditions for testing network servers in a private network, the network servers connected to the network adapters, comprising:

a switching component for receiving network communication data from an external network and directing the received network communication data to the network adapters for transmission to the respective network servers in the private network connected thereto;

a test control for selectively disabling the network servers to create failure of physical connections between the network adapters and the respective network servers in the private network connected thereto.

As discussed above, neither Kram nor Derfler discloses or suggests a mechanism for selectively disabling network adaptors to create failure of physical connections between network adapters and the respective network servers in a private network. Thus, for at least the reasons stated above, Applicant respectfully submits that claim 9 is patentable over Kram and Derfler, alone or in combination, and is allowable. Given that claims 10-16 depend from claim 9, claims 10-16 are also allowable for at least the same reasons.

As amended, independent claim 17 recites:

A system for testing network servers in a private network, comprising:

a computer functioning as a computer-based network switch, including a plurality of network adapters for forming connections to the network servers, a switching component for receiving network communication data from an external network and directing the received network communication data to the network adapters for transmission to the respective network servers in the private network connected thereto, and a test control for selectively disabling the network adapters;

a plurality of client computers connected to the external network for communication with the network servers in the private network through the computer-based network switch;

a server testing controller connected to the external network for coordinating testing of the network servers, including instructing the client computers to send network communication data to the network servers in the private network through the computer-based network switch, and causing the

test control to selectively disable the network adapters to create failure of physical connections between the network adapters and the network servers in the private network connected thereto.

As discussed above, neither Kram nor Derfler discloses or suggests a computer that includes a component for selectively disabling network adaptors to create failure of physical connections between network adapters and the respective network servers in a private network. Thus, the references fail to disclose or suggest the computer functioning as a computer-based network switch in the system, as recited in claim 17.

For at least the above-identified reasons, Applicant respectfully submits that claim 17 is patentable over Kram and Derfler, alone or in combination, and is allowable. Given that claims 18-23 depend from claim 17, claims 18-23 are also allowable for at least the same reasons.

As amended, independent claim 24 recites:

A method of testing a plurality of network servers in a private network, comprising the steps of:
    connecting the network servers to a plurality of network adapters;
    receiving network communication data from an external network;
    directing the received network communication data to the network adapters for transmission to the respective network servers in the private network connected thereto;
    selectively disabling the network adapters to create failure of physical connections between the network adapters and the network servers in the private network connected thereto.

As discussed above, neither Kram nor Derfler discloses or suggests the devices for implementing the testing mechanisms claimed in the application. Particularly, the references fail to show a computer that is configured to act as a switch to connect between an external network and servers in a private network and to selectively disable

network adaptors to create failure of physical connections between network adapters and the respective servers in the private network. Thus, the references also fail to disclose or suggest the method as recited in claim 24. For at least the above-identified reasons, Applicant respectfully submits that claim 24 is patentable over Kram and Derfler, alone or in combination, and is allowable. Given that claims 25-30 depend from claim 24, claims 25-30 are also allowable for at least the same reasons.

New claims

Claim 31 has been added to the application. Applicant respectfully submits that this new claim is patentable over Kram and Derfler for at least the reasons stated above.

Conclusion

In view of the above amendment and remarks it is submitted that the claims are patentably distinct over the cited references and that all the rejections to the claims have been overcome. Reconsideration of the above Application is requested. Based on the foregoing, Applicants respectfully requests that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this response, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by the enclosed fee transmittal, please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,

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